![ACCUTEK MICROCIRCUIT CORPORATION]

DESCRIPTION

The Accutek AK532256AW high density memory module is a CMOS dynamic RAM organized in 265K x 32 bit words. The module consists of two standard 256K x 16 bits DRAMs in plastic SOJ packages. The assembly has 2 DRAMs mounted on the front side of a printed circuit board in a 72 pad leadless SIM configuration.

This configuration allows socket-mounting of large quantities of memory in applications where high density and ease of inserting additional memory are important.

The operation of the AK532256AW is identical to eight 256K x 4 Drams. There are four $\overline{CAS}$ lines and two $\overline{RAS}$ lines. On each bank of 256K x 32, independent byte control is accomplished by four $\overline{CAS}$ lines. Each seperate $\overline{CAS}$ line controls one byte of the 256K x 16 Dram.
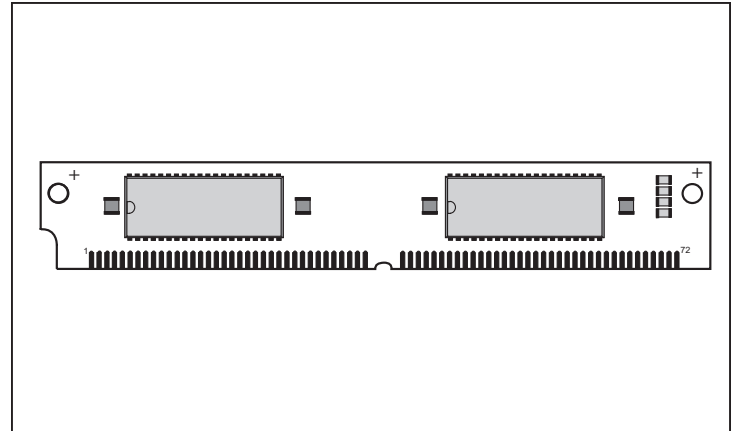
FEATURES

· 262,144 x 32 bit organization

· 72 pad Single In-Line Module

· $\overline{CAS}$-before-$\overline{RAS}$, $\overline{RAS}$-only or hidden refresh

· Operating free air temperature $0^{o}C$ to $70^{o}C$

· Single 5 Volt Power Supply

· 1024 Refresh Cycles, 16 mSEC

· Available in Fast Page Mode

· Power: 2.090 Watt Max Active (50 nS)
1.870 Watt Max Active (60 nS)
1.760 Watt Max Active (70 nS)
22 mW Max Standby

· Available in Fast Page Mode or EDO

· Upward compatible with AK532512W, AK5321024W, AK5322048W, AK5324096W and AK5328192W

ADDITIONAL OPTIONS AVAILABLE

· 256K x 36 version, AK536256W

· 512K x 32 version, AK532512W

· 512K x 36 version, AK536512W

PIN NOMENCLATURE

DQ_0 - DQ_{31}	Data In/Data Out
A_0 - A_8	Address Inputs
$\overline{CAS_0}$ - $\overline{CAS_3}$	Column Address Strobe
$\overline{RAS_0}$, $\overline{RAS_2}$	Row Address Strobe
$\overline{WE}$	Write Enable
PD_1 - PD_4	Presence Detect
Vcc	5v Supply
Vss	Ground
NC	No Connect

MODULE OPTIONS

Leadless SIM: AK532256AW

Leaded ZIP: AK532256AZ

PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL
1	Vss	19	NC	37	NC	55	DQ11
2	DQ0	20	DQ4	38	NC	56	DQ27
3	DQ16	21	DQ20	39	Vss	57	DQ12
4	DQ1	22	DQ5	40	$\overline{CAS0}$	58	DQ28
5	DDQ17	23	DQ21	41	$\overline{CAS2}$	59	Vcc
6	DQ2	24	DQ6	42	$\overline{CAS3}$	60	DQ29
7	DQ18	25	DQ22	43	$\overline{CAS1}$	61	DQ13
8	DQ3	26	DQ7	44	$\overline{RAS0}$	62	DQ30
9	DQ19	27	DQ23	45	NC	63	DQ14
10	Vcc	28	A7	46	NC	64	DQ31
11	NC	29	NC	47	$\overline{WE}$	65	DQ15
12	A0	30	Vcc	48	NC	66	NC
13	A1	31	A8	49	DQ8	67	PD1
14	A2	32	NC	50	DQ24	68	PD2
15	A3	33	NC	51	DQ9	69	PD3
16	A4	34	$\overline{RAS2}$	52	DQ25	70	PD4
17	A5	35	NC	53	DQ10	71	NC
18	A6	36	NC	54	DQ26	72	Vss

Presence Detect -

	-60	-70	-80
PD1	Vss	Vss	Vss
PD2	NC	NC	NC
PD3	NC	Vss	NC
PD4	NC	NC	Vss

FUNCTIONAL DIAGRAM
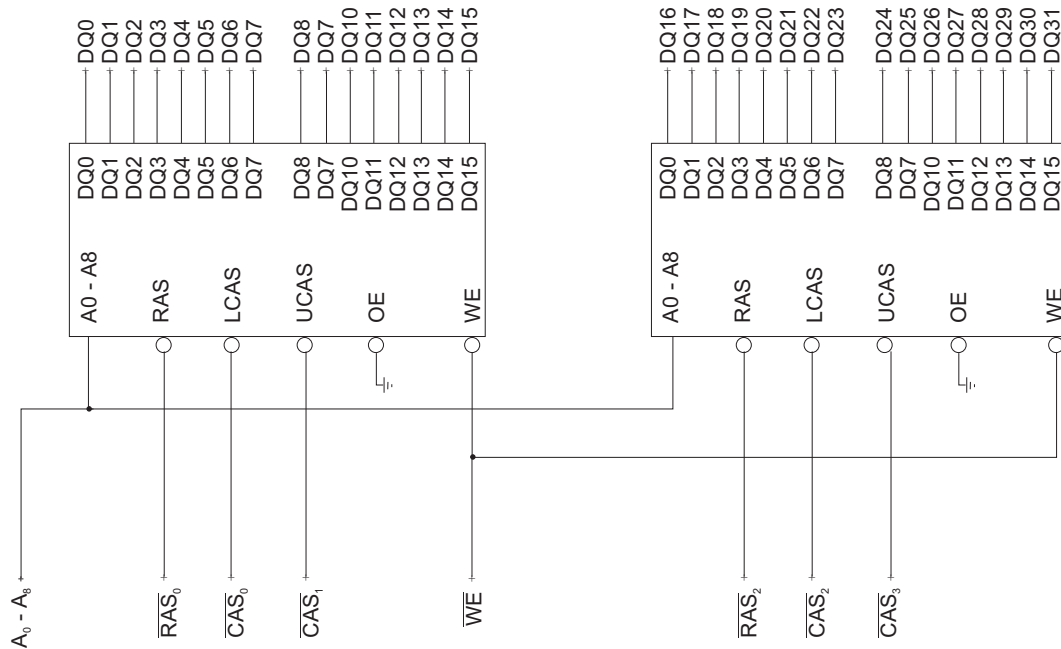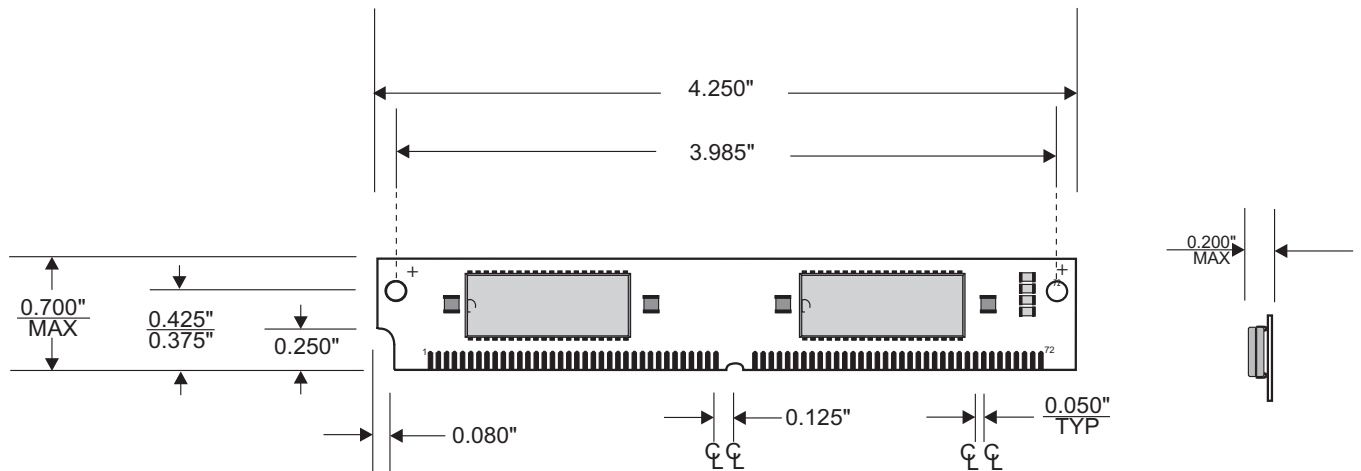
DQ0 DQ1 DQ2 DQ3 DQ4 DQ5 DQ6 DQ7 DQ8 DQ7 DQ10 DQ11 DQ12 DQ13 DQ14 DQ15

DQ16 DQ17 DQ18 DQ19 DQ20 DQ21 DQ22 DQ23 DQ24 DQ25 DQ26 DQ27 DQ28 DQ29 DQ30 DQ31

DQ0 DQ1 DQ2 DQ3 DQ4 DQ5 DQ6 DQ7 DQ8 DQ7 DQ10 DQ11 DQ12 DQ13 DQ14 DQ15

A0 - A8   RAS   LCAS   UCAS   OE   WE

A0 - A8   RAS   LCAS   UCAS   OE   WE

$A_0 - A_8$ $\overline{RAS}_0$ $\overline{CAS}_0$ $\overline{CAS}_1$ $\overline{WE}$ $\overline{RAS}_2$ $\overline{CAS}_2$ $\overline{CAS}_3$

MECHANICAL DIMENSIONS

4.250"

3.985"

0.200" MAX

0.700" MAX

0.425"
0.375"

0.250"

0.080"

0.125"

0.050" TYP

C L   C L   C L   C L

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